

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

What is claimed is:

1. **(Original)** A monitoring unit comprising:

 a power supply;

 a sensor generating an output;

 monitoring electronics connected to the sensor output including a microprocessor, firmware
memory for storing a program for the microprocessor and data memory, the monitoring electronics
detecting and recording changes in the sensor output as a triggering event; and

 a radio transmitter for transmitting information on the triggering event supplied by the
monitoring electronics, the information including an identifier for the monitoring unit.
2. **(Original)** The monitoring unit of claim 1 further comprising a radio receiver for
receiving commands and data from a reader.
3. **(Original)** The monitoring unit of claim 1 further comprising means for placing the
microprocessor in a sleep mode and an interrupt driven timer which periodically wakes the
microprocessor out of sleep to execute monitoring activity.

4. **(Presently Amended)** The monitoring unit of claim [3] 2 further comprising means for monitoring the sensor output using parameters which control thresholds used to determine whether changes in the output of the sensor constitute a triggering event and means for reading the parameters from commands received by the radio receiver.
5. **(Presently Amended)** The monitoring unit of claim [3] 1 further comprising means for recording each triggering event along with a timestamp on a timeline and means for transmitting the timeline to the reader upon receiving a command.
6. **(Presently Amended)** The monitoring unit of claim [3] 2 further comprising means for receiving data from the reader as a container identifier, the container identifier being associated with a container to which the monitoring unit is attached and means for transmitting the container identifier to the reader upon receiving a command.
7. **(Presently Amended)** The monitoring unit of claim [3] 1 further comprising means transmitting a sensor identifier to the reader upon receiving a command, the sensor identifier specifying a type of the sensor.
8. **(Original)** The monitoring unit of claim 2 further comprising means for changing the identifier for the monitoring unit based on a command received from a reader.

9. **(Original)** The monitoring unit of claim 1 further comprising means transmitting information on each triggering event in realtime.

10. **(Original)** A method of monitoring cargo in a shipping container comprising the steps of:

attaching a monitoring unit to an inside surface of the shipping container, the monitoring unit including a sensor, monitoring electronics and a radio transmitter;

upon receiving a radioed start command from a reader, commencing logging data on triggering events in a memory of the monitoring unit with a time stamp, a triggering event being a change in an output of the sensor, and

upon receiving a radioed get-response command from a reader, transmitting the data on triggering events to the reader.

11. **(Presently Amended)** The method of monitoring cargo in a shipping container of claim [11] 10 further comprising the steps of :

storing a cargo identifier received in a store-identifier command from the reader; and

transmitting the cargo identifier upon receiving a read-identifier command from the reader.

12. **(Presently Amended)** The method of monitoring cargo in a shipping container of claim [11] 10 further comprising placing ~~the~~ a microprocessor in a sleep mode, setting an interrupt driven timer to wake up the microprocessor after a elapsed period of time to resume monitoring operations.

13. **(Presently Amended)** The method of monitoring cargo in a shipping container of claim [11] 10 further comprising periodically measuring an environmental parameter, recording a value of the environmental parameter in memory and transmitting recorded values of the environmental parameter upon receiving a command from a reader.

14. **(Original)** The method of monitoring cargo in a shipping container of claim 11 further comprising the steps of transmitting a sensor identifier upon receiving a read-sensor-identifier command from the reader, the sensor identifier indicating a type of sensor.

15. **(Presently Amended)** The method of monitoring cargo in a shipping container of claim [11] 10 further comprising the steps of receiving a command with sensor parameters and using the sensor parameters to determine when a triggering event has occurred by filtering the sensor output according to the parameters.

16. **(Presently Amended)** A method of monitoring ~~objects passing into a point~~ a cargo transport compartment, said method comprising the steps of:

~~attaching~~ positioning a monitoring unit at a location within a cargo transport compartment in proximity to an inside surface of the compartment ~~the point to be monitored~~, the monitoring unit including a proximity sensor, ~~monitoring electronics~~ and a radio transmitter; upon sensing a change in an output of the proximity sensor, transmitting an identifier for the monitoring unit ~~to~~ for receipt by a reader using the radio transmitter.

17. **(New)** A monitoring unit comprising:

a power supply;

a sensor generating an output;

monitoring electronics connected to the sensor output, the monitoring electronics detecting and recording changes in the sensor output as a triggering event; and

a radio transmitter for transmitting information associated with the monitoring unit upon the occurrence of a triggering event supplied by the monitoring electronics, the information including an identifier for the monitoring unit.

18. **(New)** A security system for monitoring a cargo storage compartment, the system comprising:

a cargo storage compartment;

a sensor capable of emitting and receiving a monitoring signal; and

a radio transmitter connected to the sensor.

19. **(New)** The system of Claim 18, further comprising monitoring electronics connected to the sensor, said monitoring electronics capable of comparing the emitted and received signals of the sensor and triggering a transmission from the transmitter based on the comparison of the emitted and received signals of the sensor.

20. (New) The monitoring unit of claim 1, wherein said sensor is capable of emitting and receiving a signal.
21. (New) The monitoring unit of claim 1, wherein said sensor signal is an IR signal.
22. (New) The monitoring unit of claim 1, wherein said sensor signal is an ambient light signal.
23. (New) The monitoring unit of claim 1, wherein said sensor is an ambient light sensor.
24. (New) The monitoring unit of claim 1, wherein said sensor is a proximity sensor.
25. (New) The system of claim 18, further comprising an access port on the storage compartment.
26. (New) The system of claim 25, wherein said access port is a door.
27. (New) The system of claim 25, wherein said sensor is mounted adjacent said access port so that signals emitted from said sensor will impinge thereon.
28. (New) The system of claim 18, wherein said compartment has an interior and an exterior and said sensor is disposed in the interior of said compartment.
29. (New) The system of claim 18, wherein said compartment has an interior and an exterior and said transmitter is disposed in the interior of said compartment.
30. (New) A method for monitoring a transport storage compartment, said method comprising the steps of:

positioning a monitoring unit having a sensor and a transmitter inside said storage compartment;

utilizing said sensor to monitor the physical condition of the inside surface of the storage compartment; and

utilizing said transmitter to transmit a signal based on the physical condition of the inside surface of the storage compartment.

31. (New) The method of claim 30, further comprising the step of commencing logging data regarding the compartment upon a triggering event.

32. (New) The method of claim 31, wherein said triggering event is a change in output from the sensor.

33. (New) The method of claim 30, further comprising the step of monitoring the ambient light within the compartment.

34. (New) The method of claim 30, further comprising the step of emitting a signal from said sensor to reflect on an inside surface of said compartment.

35. (New) The method of claim 34, further comprising the step of utilizing said sensor to receive a signal reflected by said inside surface.

36. (New) The method of claim 34, wherein said inside surface is an access port to said surface.

37. (New) The method of claim 30, further comprising the step of commencing logging data regarding the compartment upon a triggering event.

38. **(New)** The method of claim 16, wherein said proximity sensor is positioned adjacent an access port to said compartment.
39. **(New)** The method of claim 16, wherein said change in output results from opening said compartment.
40. **(New)** The system of claim 18, wherein said sensor is a reflective energy sensor.
41. **(New)** The monitoring unit of claim 1, wherein said sensor is a reflective energy sensor.
42. **(New)** The method of claim 10, wherein said sensor is a reflective energy sensor.
43. **(New)** The method of claim 42, further comprising the step of utilizing said reflective energy sensor to reflect energy off an inside surface of said shipping container.
44. **(New)** The system of claim 18, wherein said sensor is wirelessly connected to said radio transmitter.
45. **(New)** The method of Claim 39, wherein said step of opening is opening an access port.
46. **(New)** The method of Claim 39, wherein said step of opening is creating an opening in said compartment.